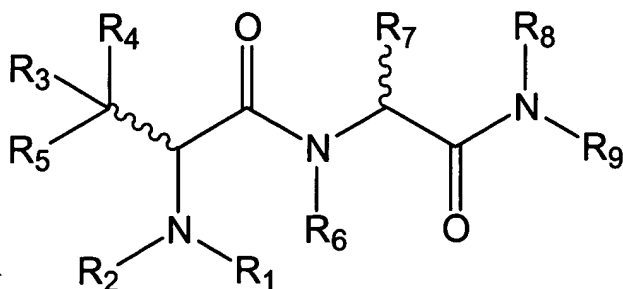


**IN THE CLAIMS:**

1-21. (Cancel)

22. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring  
Ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,

or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

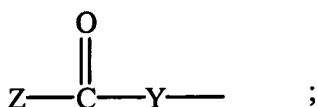
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

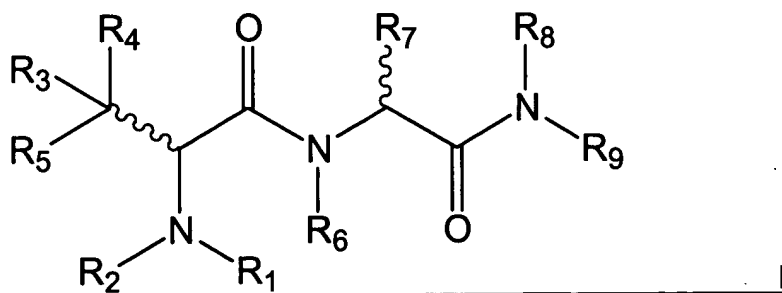
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

23. (Previously Presented) The compound of claim 22, wherein Ar is phenyl, naphthyl, anthracyl, or pyrrolyl.

24. (Currently Amended) ~~The compound of claim 22, where~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-,  
provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a  
ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

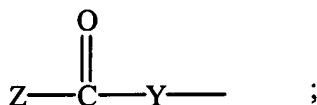
R<sub>5</sub> is selected from the group consisting of: naphthyl, anthracyl, or pyrrolyl;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or  
non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen  
atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms  
are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>,  
-NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO,  
-COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>,  
-SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or  
unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven

member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

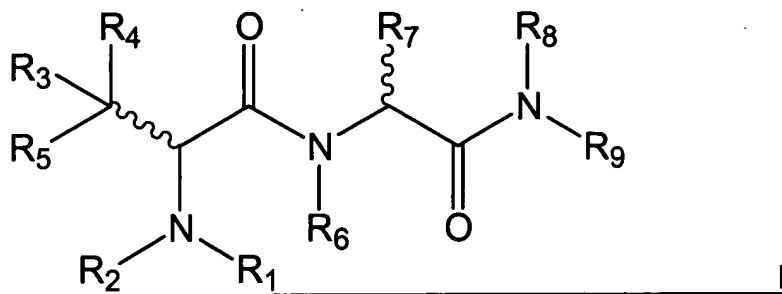
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

25. (Previously Presented) The compound of claim 22, wherein R<sub>5</sub> is phenyl.

26. (Currently Amended) ~~The compound of claim 22, wherein A compound or~~  
pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

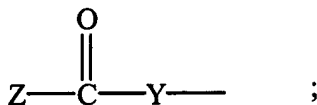
R<sub>5</sub> is H;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>,

-NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

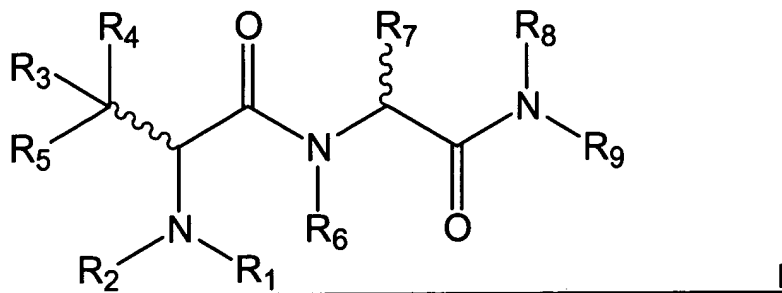
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

27. (Previously Presented) The compound of claim 22, wherein R<sub>5</sub> is R.

28. (Currently Amended) ~~The compound of claim 27, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-,  
provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a  
ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

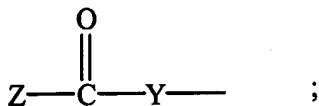
R<sub>5</sub> is methyl;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:





R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R.

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

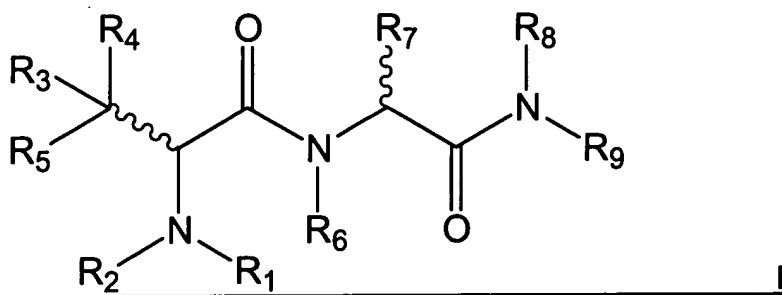
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH;

-SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

29. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

one of R<sub>3</sub> and R<sub>4</sub> is H and the other of R<sub>3</sub> and R<sub>4</sub> is ArR-;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R.

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

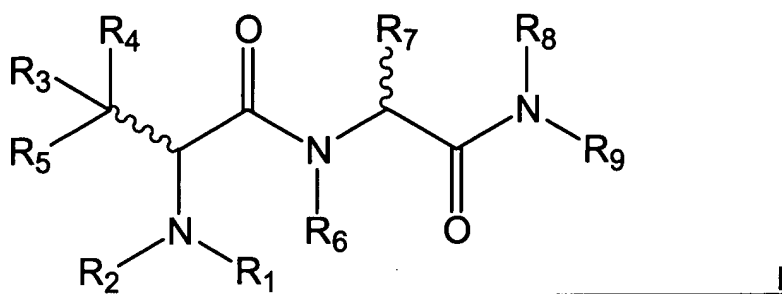
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH;

-SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

30. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are each R;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH;

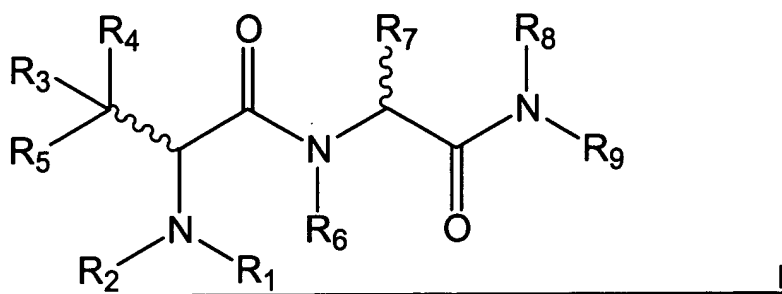
-SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

31. (Previously Presented) The compound of claim 30, wherein R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: methyl, ethyl, n-propyl and n-butyl.

32. (Previously Presented) The compound of claim 31, wherein R<sub>3</sub> and R<sub>4</sub> are each -CH<sub>3</sub>.

33. (Previously Presented) The compound of claim 32, wherein R<sub>5</sub> is Ar.

34. (Currently Amended) The compound of claim 22, wherein A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a

ring;

$R_3$  and  $R_4$  are joined and form a moiety selected from the group consisting of  $\beta$ -cyclopropyl,  $\beta$ -cyclobutyl,  $\beta$ -cyclopentyl and  $\beta$ -cyclohexyl;

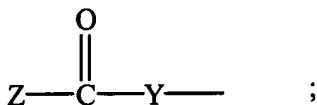
$R_5$  is selected from the group consisting of: H, R, ArR-, and Ar;

$R_6$  is selected from the group consisting of: H, R, and ArR-;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and ArR-;

and

$R_9$  is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $R_1$  and  $R_2$  or by joining  $R_3$  and  $R_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN,

-CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>,  
-SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

35. (Previously Presented) The compound of claim 22, wherein R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of H, methyl, ethyl, propyl, n-butyl and acetyl.

36. (Previously Presented) The compound of claim 22, wherein R<sub>1</sub> and R<sub>2</sub> are joined and form a moiety selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl.



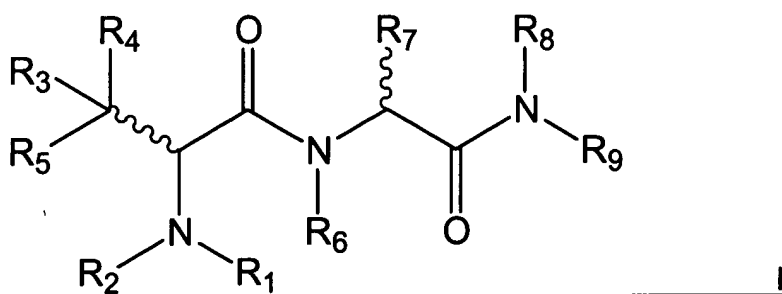
37. (Previously Presented) The compound of claim 22, wherein  $R_1$  and  $R_2$  are independently H,  $CH_3$  or acetyl.
38. (Previously Presented) The compound of claim 22, wherein  $R_1$  and  $R_2$  are independently H or  $CH_3$ .
39. (Previously Presented) The compound of claim 38, wherein  $R_1$  is H, and  $R_2$  is  $-CH_3$ .
40. (Previously Presented) The compound of claim 38, wherein  $R_5$  is Ar.
41. (Previously Presented) The compound of claim 38, wherein  $R_3$  and  $R_4$  are each  $-CH_3$ .
42. (Previously Presented) The compound of claim 41, wherein  $R_5$  is Ar.
43. (Previously Presented) The compound of claim 42, wherein  $R_5$  is phenyl.
44. (Previously Presented) The compound of claim 22, wherein  $R_6$  is H or  $CH_3$ .
45. (Previously Presented) The compound of claim 42, wherein  $R_6$  is H or  $CH_3$ .
46. (Previously Presented) The compound of claim 45, wherein  $R_6$  is H.

47. (Previously Presented) The compound of claim 22, wherein  $R_8$  is H or  $CH_3$ .
48. (Previously Presented) The compound of claim 42, wherein  $R_8$  is H or  $CH_3$ .
49. (Previously Presented) The compound of claim 45, wherein  $R_8$  is H or  $CH_3$ .
50. (Previously Presented) The compound of claim 49, wherein  $R_8$  is  $CH_3$ .
51. (Previously Presented) The compound of claim 22, wherein  $R_6$  is H and  $R_8$  is  $CH_3$ .
52. (Previously Presented) The compound of claim 42, wherein  $R_6$  is H and  $R_8$  is  $CH_3$ .
53. (Previously Presented) The compound of claim 22, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.
54. (Previously Presented) The compound of claim 42, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.
55. (Previously Presented) The compound of claim 45, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.
56. (Previously Presented) The compound of claim 49, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.

57. (Previously Presented) The compound of claim 53, wherein  $R_7$  is  $-C(CH_3)_3$ .

58. (Previously Presented) The compound of claim 22, wherein  $R_6$  is H,  $R_7$  is  $-C(CH_3)_3$ , and  $R_8$  is  $-CH_3$ .

59. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

$R_1$  and  $R_2$  are independently selected from the group consisting of: H, R, and  $ArR-$ , provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, or  $R_1$  and  $R_2$  are joined to form a ring;

$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR-$ , or  $R_3$  and  $R_4$  are joined to form a ring;

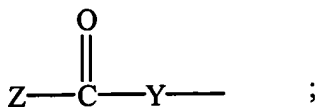
$R_5$  is selected from the group consisting of: H, R,  $ArR-$ , and Ar;

$R_6$  is selected from the group consisting of: H, R, and  $ArR-$ ;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and  $ArR-$ ;

and

$R_9$  is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

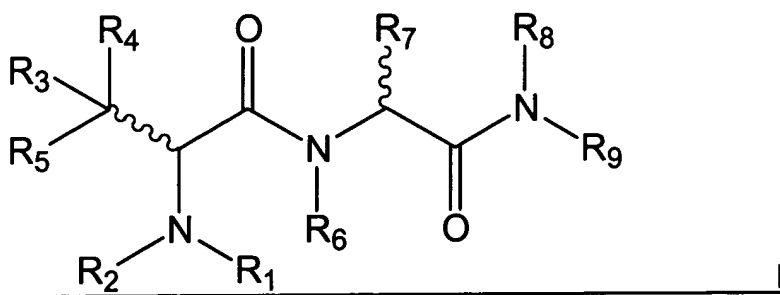
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is  $\text{-NHCH(R}_{11}\text{)COOH}$  or  $\text{-NCH}_3\text{CH(R}_{11}\text{)COOH}$ , wherein  $\text{R}_{11}$  is R; or,  $\text{-(CH}_2\text{)}_n\text{NHC(NH)(NH}_2\text{)}$ .

60. (Previously Presented) The compound of claim 22, wherein Z is  $\text{-OR}_{14}$  in which  $\text{R}_{14}$  is a linear or branched one to six carbon alkyl group.

61. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

$\text{R}_1$  and  $\text{R}_2$  are independently selected from the group consisting of: H, R, and  $\text{ArR-}$ , provided that neither  $\text{R}_1$  or  $\text{R}_2$  is tert-butoxycarbonyl, or  $\text{R}_1$  and  $\text{R}_2$  are joined to form a ring;

$\text{R}_3$  and  $\text{R}_4$  are independently selected from the group consisting of: H, R, and  $\text{ArR-}$ , or  $\text{R}_3$  and  $\text{R}_4$  are joined to form a ring;

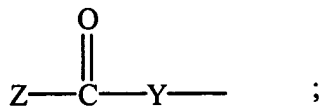
$\text{R}_5$  is selected from the group consisting of: H, R,  $\text{ArR-}$ , and Ar;

$\text{R}_6$  is selected from the group consisting of: H, R, and  $\text{ArR-}$ ;

$\text{R}_7$  and  $\text{R}_8$  are independently selected from the group consisting of: H, R, and  $\text{ArR-}$ ;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

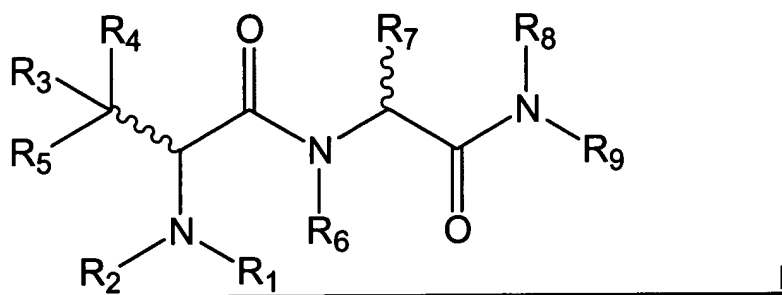
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited

to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and  
Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is OH.

62. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or  
pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-,  
provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a  
ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

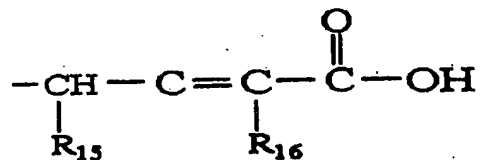
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is -OCH<sub>3</sub>.

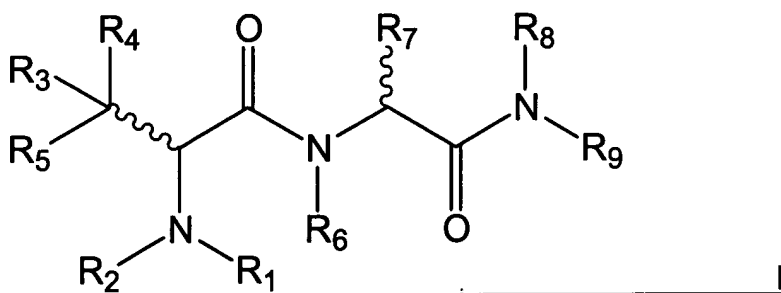


63. (Previously Presented) The compound of claim 22, wherein R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl.

64. (Currently Amended) ~~The compound of claim 63, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

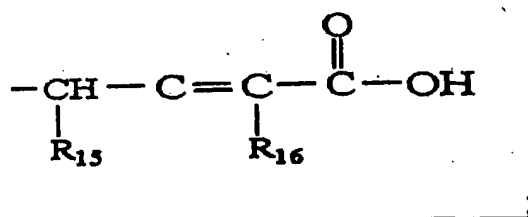
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is methyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>,

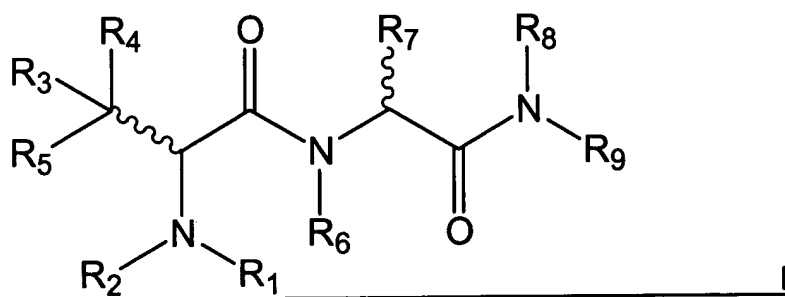
-SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

65. (Currently Amended) ~~The compound of claim 63,~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-,

provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

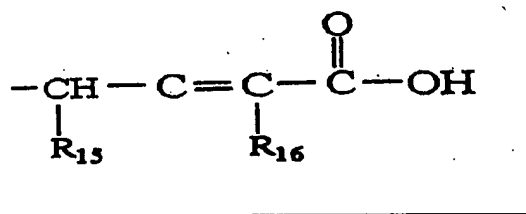
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is isopropyl and R<sub>16</sub> is methyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

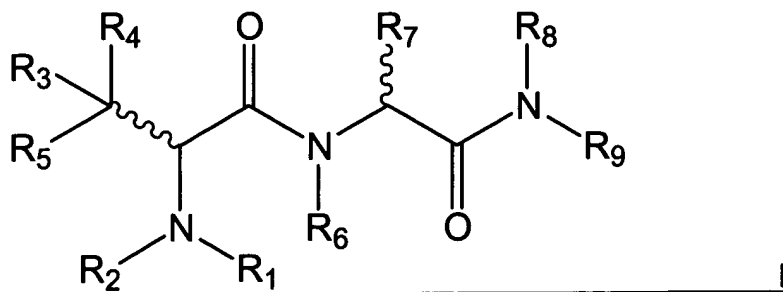
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

66. (Currently Amended) ~~The compound of claim 55, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

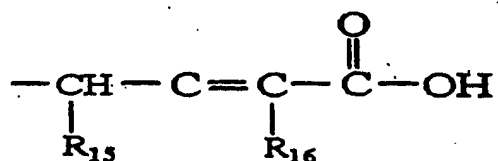
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is H or CH<sub>3</sub>;

R<sub>7</sub> is a three to six carbon atom, branched alkyl group;

R<sub>8</sub> is independently selected from the group consisting of: H, R, and ArR-; and

R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is selected from the group consisting of: methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

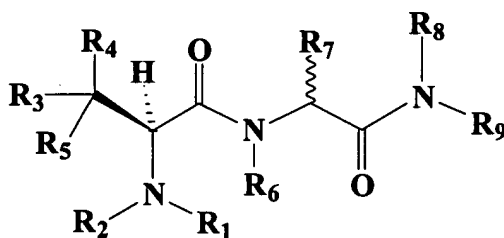
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH;

-SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

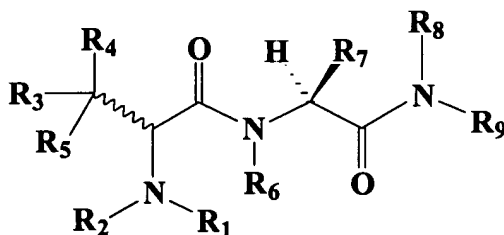
67. (Previously Presented) The compound of claim 66, wherein Z is OH or -OR<sub>14</sub> in which R<sub>14</sub> is a linear or branched one to six carbon alkyl group.

68. (Previously Presented) The compound of claim 22, having the configuration:



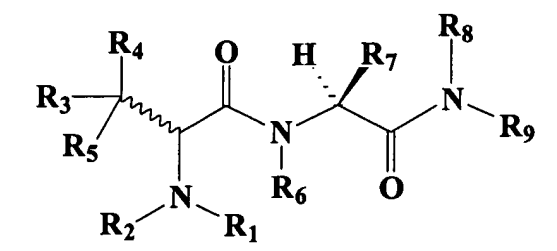
69. (Previously Presented) The compound of claim 22, wherein Y comprises a chiral centre having an s-configuration.

70. (Previously Presented) The compound of claim 22, having the configuration:

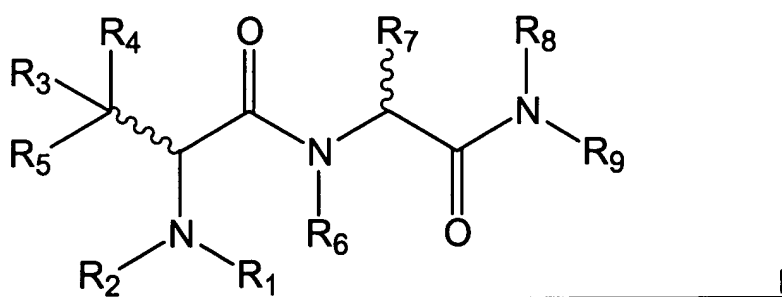




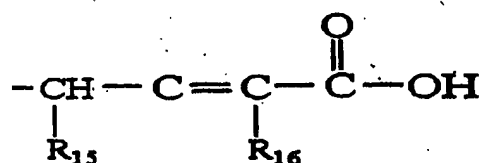
71. (Currently Amended) ~~The compound of claim 70, wherein~~ A compound or pharmaceutically acceptable salt thereof having the configuration:



and having the formula:



wherein R<sub>5</sub> is Ar; R<sub>3</sub> and R<sub>4</sub> are each CH<sub>3</sub>; R<sub>1</sub>, R<sub>2</sub>, R<sub>6</sub> and R<sub>8</sub> are independently H or CH<sub>3</sub>; R<sub>7</sub> is a three to six carbon branched alkyl group; and, R<sub>9</sub> has the formula



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms

are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

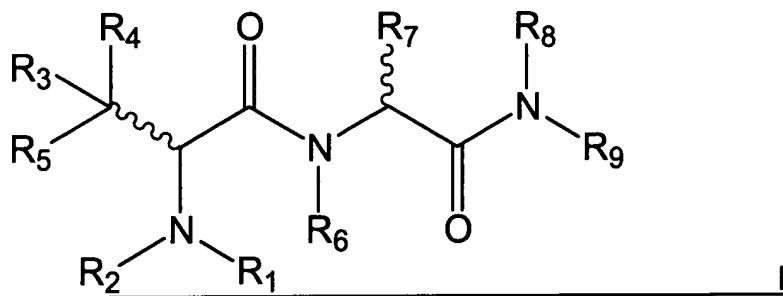
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected

from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

72. (Currently Amended) ~~The compound of claim 22,~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

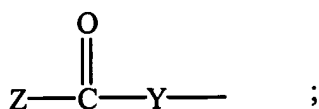
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R.

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

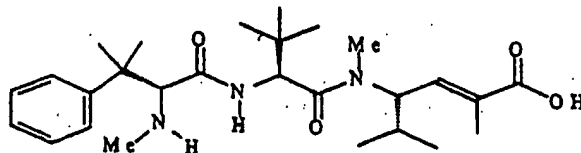
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH;

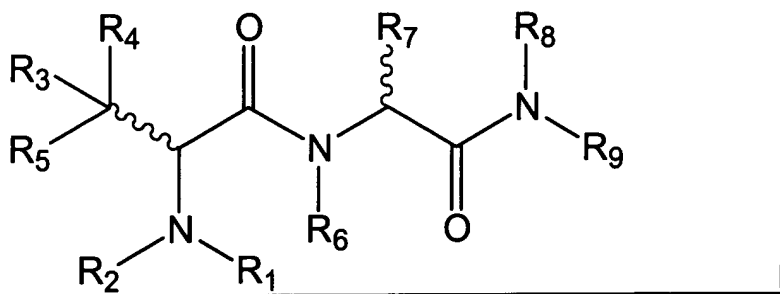
-SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof;

wherein the compound has the structure:



in which Me is CH<sub>3</sub>.

73. (Currently Amended) A pharmaceutical composition suitable for treating tumors comprising an anti-tumor effective amount of a compound or pharmaceutically acceptable salt having the formula having the formula



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,

or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

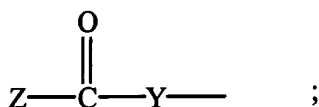
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof; and

an acceptable pharmaceutical excipient.

74. (Withdrawn) A method of treating tumors by arresting cell mitosis in a patient in need of such treatment comprising administering to said patient an anti-mitotic effective amount of at least one compound of claim 22.

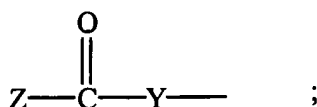




optionally substituted with: =O, =S, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO, -CONH<sub>2</sub>, -COSH, -NO<sub>2</sub>;

R<sub>8</sub> is selected from the group consisting of: H and a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms optionally substituted with -OH; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with phenyl, naphthyl, anthracyl, phenanthryl or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms optionally substituted with: =S, -OH; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; or pharmaceutically acceptable salt thereof.

76. (New) The compound or pharmaceutically acceptable salt of claim 75, wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, methyl, ethyl, propyl and n-butyl;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of H, methyl, ethyl, n-propyl and n-butyl, or R<sub>3</sub> and R<sub>4</sub> are joined to form a three to seven member non-aromatic ring;

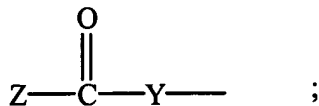
R<sub>5</sub> is selected from the group consisting of: R, ArR-, and Ar;

R<sub>6</sub> is H;

R<sub>7</sub> is ArR- or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO;

R<sub>8</sub> is selected from the group consisting of: H and CH<sub>3</sub>; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

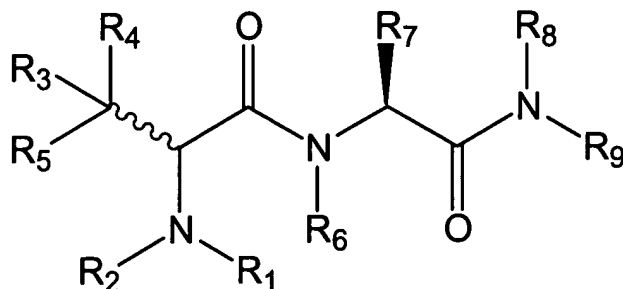
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with phenyl, naphthyl, anthracyl, phenanthryl or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms

optionally substituted with: =S, -OH; and

Z is defined as a moiety selected from the group consisting of: -OH, -SH; -NH<sub>2</sub>;  
or pharmaceutically acceptable salt thereof.

77. (New) The compound of claim 75, having the configuration:



78. (New) The compound of claim 75, having the configuration:

